## Globalization, Employment, and Economic Development: The "Pro" arguments

Roger Bohn (UCSD) rbohn@ucsd.edu

## Sloan Workshop Series in Industry Studies Rockport, Massachusetts, June 14-16, 2004

Informal Note, June 8 2004

Globalization presents mixed benefits, for different groups and different specific activities. Given its importance it is tempting to concentrate on the "anti-globalization" research agenda, namely the many ways in which it may cause harm. However, from a policy point of view it is important to understand what is good as well as what is bad, in order to tune policies regarding globalization. From a research point of view, it is important to investigate claims of all kinds regarding globalization, to test their validity.

This is an informal commentary. It is not meant to be original work. Quite the contrary, my hope is that it provides a consensus starting point for discussion. I have not attempted to trace the origin of each idea expressed here, but obviously they are influenced by the briefing papers. Apologies for the lack of references.

I break the discussion into three parts. First, if offshoring did not take place, what would have happened instead? It is simplistic to assume that every time someone in the US is laid off "to move a job overseas," that person would have remained in their same job indefinitely if the job had not moved overseas. But simple headcount exercises implicitly makes this assumption. So analyses of the harm done by globalization must be careful to specify "compared to what?"

Second, offshoring benefits many parties, and not just shareholders. What are these benefits? A key to benefit distribution is the degree of competition in the product and labor markets.

Third, I repeat the argument of others that job loss as such is not necessarily a problem. The economy has overcome analogous job losses in the past.

#### A. The Counter-Factual Case

One issue that analysis of offshoring must consider is "What is the counter-factual?" That is, if an industry had not done Behavior X (go offshore, outsource, outsource to companies that go offshore, etc.), what would have happened? This was a very important issue in our study of hard disk drives. The usual implicit assumption is that the industry would have stayed in stasis if it had not done X. If the status quo ante is situation Stasis (employment patterns, wage levels, degree of automation, product mix, supply chain, etc), then the effects of X are:

Social benefits (X) – Social benefits (Stasis)

But very few industries that are undertaking offshore activity (directly or indirectly) are static; in fact the activity is often initiated or at least accelerated as a result of visible pressures. If American firms did not globalize in some fashion, what would happen? Realistic possibilities include complete loss of an industry to foreign firms employing foreign workers, or a shift in the domestic employment mix.

Loss of market share to foreign firms. Foreign firms can hire foreign workers just as easily, and sometimes more easily, than American firms can. Taiwanese firms using Chinese factory workers are a famous case. This allows them access to low cost labor, so that to the extent low cost labor reduces costs they can outcompete the incumbent American firm. The result can be leveraged wage losses far beyond the amount that would have been lost if the American firm had gone offshore. As in the infamous case of the American TV industry in the 70s and 80s, there is not much difference to American consumers or workers between Japanese TVs made in Japan by Sony and Matsushita (and later by Samsung etc), and General Electric TVs made in Japan (and later in Korea, China, etc).

In the Hard Disk Drive industry (HDD), McKendrick Haggard and Doner concluded that its offshore assembly strategy was a major factor in maintaining dominance vis a vis Japanese firms in the 1980s and 90s, which continue to this day to be serious competitors in every respect. (Hitachi has essentially bought out IBM in the last 5 years, although this had little effect on employees formerly at IBM.) Maxtor and Quantum recently merged. One result is that the merged company no longer sources Quantum's drives from a highly automated Japanese company.

Complete exit from market segments and industries. This is basically an extension of "loss of market share". In many historical episodes (TVs, New England shoe and textile industries, etc.) firms that did not shift their employment bases were eventually forced out of business by competition. In some cases, the American brand name was eventually purchased by a foreign firm (RCA/Thompson), confusing the visible situation. The same thing is probably happening in the furniture industry today.

Increasing automation. In many service industries, back room operations are (to whatever extent) being sent offshore. But in many cases, increasing automation is a parallel trend. To a large extent, the two are substitutes. The technology employed with low cost labor abroad would often not be the same if that activity remained in the US. Certainly the 10,000 Thai workers Seagate employed at one time were not displacing a like number of Americans, even if the same production stages had been done in the US. A contemporary example of this is the increasing use of IT in transactions processing, such as automated phone systems for customer interaction and AI for evaluating credit card transactions in a few seconds. Either of these could instead be done by workers in India. But either way, there is a first order effect of lost American jobs. (Anecdote: During a recent trip to Russia, Visa cut off my credit card. When I returned, there was voice mail on my home telephone asking me to call an 800 number to confirm some

transactions. I did so, and the entire series of events was handled *without any detectable human intervention*.)

This is not to argue that increasing automation is necessarily bad for American, nor that it is equivalent to moving activities offshore. In many industries, American firms are dominant suppliers of automation (machinery, IT, or whatever). The shift toward higher capital/labor ratios has been going on for centuries. But it does again say that status quo ante is not the proper comparison.

Increased outsourcing to domestic firms with accompanying shifts in wages. The Gereffi and Sturgeon workshop briefing paper makes the excellent point that outsourcing the more routinized jobs implicitly makes it easier to set up a two-tier wage structure (also benefits, security, and so on). This is true even if the outsourced job is done in the US by US workers. Walking through an HP plant in the US today one seems large number of non-HP employees. Socially, this outcome is not as bad as going offshore but it has some of the drawbacks.

#### **B.** Benefits

Now I turn to benefits to society of offshore activity. In large part, the distribution of benefits depends on market power. One implicit assumption in some discussions of offshoring is that the US firms doing it are monopolists. Therefore, when their costs fall due to cheaper labor, the argument goes, firms capture all the reduction in the form of increased profits. (Actually, even with a monopolist, consumers will gain somewhat from cost reduction, because the  $MR = MC_{new}$  condition will be met at a higher volume and lower price than before.) The opposite assumption is that the firms are perfect competitors. In this situation, consumers pick up all the home-country benefits in the form of lower prices and increased supply. Profits remain the same as before.

Certainly in the disk drive industry, there is no evidence that firms that went offshore earned excess profits for a sustained period. On the contrary the industry was at the time (and still is) marked by frequent price wars and exit. The only reward for moving some operations offshore was to stay in the game. I surmise that most of the industries now going through this transformation, or which did so in the past, are also highly competitive. For example, textiles, apparel, laptop computers, IT services, banking, transactions processing, electronics assembly, and so forth. In low-tech cases this is not coincidence: emergence of the conditions that make offshore manufacturing possible often also makes possible entry by foreign-based firms into US markets.

Just as market power matters in the home country product market, it matters in the receiving country labor market. To the extent that firms are labor price takers, workers benefit from higher wages.

Therefore in what follows I assume that markets are highly competitive.

## Benefit: Increasing productivity in industries and firms that outsource or offshore.

In the long run increasing productivity is critical to increasing standard of living, and going offshore is one mechanism to increase productivity. Any time a cost-reducing innovation takes place (whether in business method, technology, or sourcing), the value added per worker goes up. The same is true for Total Factor Productivity. Although the experience of the 1990s shows that rising productivity does not necessarily benefit all workers in the US, rising productivity is a necessary condition for rising average domestic living standards.

Benefit: Reduced costs of goods and services. The Wal-Mart effect is a double edged sword. American workers lose jobs, but American consumers pay lower prices. @@@Given Wal-Mart's customer demographics, the overall income redistribution effects of this might even be positive.

*Improved cost, volume, and quality of services for American buyers*. The literature on Indian outsourcing has documented examples where low-cost, high-skilled Indian labor was used to provide more of a service, and at a higher quality, than was economically practical before. Examples may include:

- Insurance underwriting
- 24 hour customer IT support, by telephone, email, and web
- Testing of software
- Faster-turnaround radiology interpretation, and presumably other lab tests

These lower costs and improved quality provide benefits to the American purchasers of those services, and (as long as there is competition among the American providers) purchasers will capture most of the benefits rather than producers.

Anecdotally there have been cases where the offshore service quality was worse than before, resulting in complaints (Dell computer). This illustrates the importance of remembering that wage rates, per se, should not be the main criterion in deciding what to outsource or offshore. The statement that Chinese workers are paid one tenth of American workers, and therefore American workers cannot compete, is dangerously wrong, because it distracts attention from what America needs to do to compete.

# Reduced unemployment and increased standard of living for the country receiving the new jobs.

To the extent that we are concerned about *global* income inequality (and I believe we should be, even for purely selfish reasons), increased employment and rising wages as a result of incoming jobs is a benefit to the receiving country. There are at least two ways of dismissing this benefit. A common complaint is that these are "sweatshop jobs," but even though working conditions can and should be improved, as long as employment is voluntary, they are improving the standard of living. 19<sup>th</sup> century British factory workers are a useful analogy. This argument is also clearly not applicable to the skilled engineers and university graduates who are benefiting in places like India and China (and previously Taiwan and Korea).

A second argument that could be made against counting foreign jobs as a benefit is that some of the factory workers in developing countries were forced out of agriculture as a result of huge developed country subsidies for domestic agriculture, which drive down agricultural prices. Urbanization of developing countries is two centuries old and has many drivers, but this is certainly one cause today. This leads to a discussion about "second best." Turning it around, one factor encouraging low wages in developing countries, and therefore loss of US jobs, is agricultural subsidies. Potentially there is an alliance between US trade unions, and developing countries protesting lack of open agricultural trade. American workers pay for these subsidies three times: in taxes, in higher food prices, and indirectly in lower wages.

In sum, whether reduced unemployment in developing countries is a benefit depends on the comparison scenario one is examining. First-best might be no agricultural subsidies, third best (for developing countries) is no exported jobs and no agricultural subsidies. But unless agricultural subsidies can be dramatically reduced (including Europe and Japan of course), exported jobs are certainly better than the alternative for farmers forced out of agriculture.

**Benefit: Increased Flexibility** The Gereffi and Sturgeon briefing paper emphasizes that a variety of structural shifts are proceeding at once. The following point is more about outsourcing and vertical disaggregation of supply chains than about offshoring per se. One of the effects of outsourcing is increased flexibility to respond to shifts and shocks, whether they be exchange rate shifts, new technology, unanticipated demand, or whatever. In fact, one of the key benefits of subcontracting in supply chains arises from "law of large number" effects for the subcontractor, and would be worthless in a static world.

At first blush, flexibility often seems bad for workers and bad for the economy. But I suggest that this reasoning is analogous to French laws against laying off workers: while pro-labor in concept, their actual effect is strongly anti-worker. The final cost of labor is reduced, the more flexible the workers are. Even if the contract manufacturer has the same wage rates and policies about layoffs as the prime, it gains labor efficiency from customer diversification. The more labor flexibility the firm has, the lower the cost per labor hour. (E.g. this is a prime motivation for cross-training within a plant.)

This is somewhat counterintuitive, and some well-known union contracts raise the cost of labor flexibility, which according to my argument is against the interests of their workers. I think this is related to the issue of job insurance, and perhaps to the situation of unions in declining industries. Certainly on work-rule issues, there has been a lot of movement toward increased flexibility. Undoubtedly there are complexities here that a simple "flexibility is good for everyone" rule does not capture. But it is simplistic to assume that old-style vertically integrated firms are socially superior.

## C. Comment: historical examples and the role of job creation.

A primary concern is job losses in industries directly affected by offshoring. But job losses alone do not mean that offshoring is detrimental. Even if every industry that goes offshore loses jobs, offshoring can still increase employment and national welfare. This is the standard theory of comparative advantage in trade – offshoring (or importing) of low value-added activities frees resources for higher-value activities. The briefing paper by Bernard Jensen and Schott (2004) documents that plant level behavior was consistent with theory. Plants in industries facing low-wage competition were more likely to close, to raise their capital-intensity, or to shift to other industries.

This is essentially what happened in the US consumer electronics industry. Factories closed, manufacturing workers were laid off. But other industries (including other kinds of electronics) greatly increased employment. A healthy economy creates new jobs which "absorb" laid off workers. There is no need for the accounting to balance on each industry's job losses and job creation. (And even in industries seemingly hurt by offshoring, the single-industry net loss may be small. See eg the Sturgeon and Florida 2000 quotation on autos.)

There are several legitimate objections raised to taking the theory at face vale. First, "transition costs" can be severe and long-lasting, due to skills mismatch and other causes. As many have mentioned, the US has been *ad hoc* and often ineffective at bridging these transitions, just as it was with prior waves of layoffs due to technological obsolescence, regional shifts of production, and so forth. (Examples illustrating that this "declining industries" problem is not new include aerospace shrinkage in S. California in the 1990s, transfer of apparel, furniture, and other manufacturing from the Northeastern states to the South in the 1950s, wiping out of the minicomputer industry in Massachusetts in the 1980s.)

Second, adjustment in international trade requires that a country which is increasing its imports (due to offshoring or other reasons) must either increase its exports, or devalue its currency. If neither happens, the US will run a trade deficit indefinitely, perhaps with a corresponding "jobs deficit" (until foreigners lose faith in the value of the dollar, and it drops, perhaps dramatically).

Third, the US has in fact not created enough new jobs in the last 5 years to replace those lost due to recession, bursting bubbles, and offshoring, among other causes. Does this have anything to do with offshoring? It does not matter what industry or firm creates the jobs (eg contractors versus vertically integrated companies), but it does matter *where*.

From this perspective, the worrisome issue is not whether companies are conducting activities abroad that previously they did in the US, but rather whether, in the long run, companies which increase output will hire abroad rather than in the US. If that were to happen, then the long run result would be to make permanent the loss of jobs (for whatever reason and in whatever industry they were lost). So the concerns about education and skill formation are key (eg the paper by Lazonick Fiddy and Quimby about the optical networking industry in New England). So are all other factors that affect entrepreneurial activity, industry creation, job formation and the like.

Finally, my impression is that even when the theory of international trade is operating "properly", it says nothing about income distribution. Again, offshoring is analogous to automation in that it implies a reduction in wages for low skilled work compared to higher skilled.

I look forward to discussing these issues at the workshop, as part of a framework for thinking about "globalization, employment, and economic development".